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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,111	09/26/2003	Kentaro Toyama	81190-0007	2316
29693	7590	11/19/2010		
WILEY REIN LLP 1776 K. STREET N.W. WASHINGTON, DC 20006			EXAMINER COLAN, GIOVANNA B	
			ART UNIT 2162	PAPER NUMBER
			MAIL DATE 11/19/2010	DELIVERY MODE PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KENTARO TOYAMA and RON LOGAN

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Appeal 2009-006527  
Application 10/673,111<sup>1</sup>  
Technology Center 2100

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Before HOWARD B. BLANKENSHIP, JEAN R. HOMERE, and  
JAMES R. HUGHES, *Administrative Patent Judges*.

HUGHES, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>2</sup>

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<sup>1</sup> Application filed September 26, 2003. The real party in interest is PlanetEye Co., ULC. (App. Br. 3.)

<sup>2</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

## STATEMENT OF THE CASE

Appellants appeal from the Examiner's rejection of claims 1-22 and 26-30 under authority of 35 U.S.C. § 134(a). Claims 23-25 have been canceled. (App. Br. 3.) The Board of Patent Appeals and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

### *Appellants' Invention*

The invention at issue on appeal relates to a process or method for “for combining the precision estimate of a database entry's coordinate value such that the precision information is included as part of a one-dimensional index by constructing a hierarchical index in which the size of the grid is related to the precision of the coordinate value.” (Spec. 2:29-3:2.)<sup>3</sup>

### *Representative Claim*

Independent claim 1 further illustrates the invention. It reads as follows:

1. A computer-implemented process for combining a precision estimate of a database entry's coordinate value with the coordinate value into a single index, comprising the process actions of:

inputting one or more location entities;

computing a one-dimensional grid index series wherein each location entity is represented as a series of grids that incorporate the location of each location entity; and

outputting said grid index series to a database.

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<sup>3</sup> We refer to Appellants' Specification (“Spec.”); Second Amended Brief on Appeal (“App. Br.”) filed February 29, 2008; and Reply Brief (“Reply Br.”) filed October 3, 2008. We also refer to the Examiner's Answer (“Ans.”) mailed August 8, 2008.

*References*

The Examiner relies on the following references as evidence of unpatentability:

Agrawal	US 5,647,058	Jul. 8, 1997
Porcelli	US 6,333,924 B1	Dec. 25, 2001
McBride	US 6,370,476 B1	Apr. 9, 2002
Enomoto	US 6,603,885 B1	Aug. 5, 2003
Na	EP 0838 764 A2	Apr. 29, 1998

*Rejections on Appeal*

The Examiner rejects the claims on appeal as follows:

Claims 26-30 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1-6, 14-18, 21, 22, 26, 27, 29, and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McBride and Agrawal.

Claims 7, 8, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McBride, Agrawal, and Enomoto.

Claims 9-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McBride, Agrawal, Enomoto, and Porcelli.

Claims 19 and 20 under stand rejected 35 U.S.C. § 103(a) as being unpatentable over the combination of McBride, Agrawal, Enomoto, and Na.

## ISSUES

Based on our review of the administrative record, Appellants' contentions, and the Examiner's findings and conclusions, the pivotal issues before us are as follows:

1. Does the Examiner err in rejecting Appellants' claims 26-30 under 35 U.S.C. § 101? The issue turns on whether the claimed invention is directed to statutory subject matter.
2. Does the Examiner err in finding the combination of McBride and Agrawal would have collectively taught or suggested computing a one-dimensional grid index series wherein each location entity is represented as a series of grids that incorporate the location of each location entity as recited in Appellants' claim 1?

## FINDINGS OF FACT (FF)

### *Appellants' Specification*

1. Appellants' claims 26-30 each recite a "computer-readable medium." (App. Br. 17-18, Claim App'x.)
2. Appellants' Specification describes the computer readable media as comprising communication media such as data signal or carrier wave. (Spec. 8:24-9:9.) Specifically, Appellants' Specification explains that "computer readable media may comprise computer storage media and communication media." (Spec. 8:27-29.) Appellants' Specification further explains that "[c]ommunication media typically embodies computer readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism and includes any information delivery media." (Spec. 9:6-9.)

*McBride Reference*

3. McBride describes a method for transforming survey location points from “a first, globally defined datum” to “a second datum over a chosen region, that varies continuously with the (arbitrary) choice of survey points within the region.” (Col. 2, ll. 25-28.) McBride describes a grid of survey points (locations) including corresponding location coordinates and a grid point index “m” (col. 3, l. 23 to col. 4, l. 44; Fig. 3) – “grid G of spaced apart points  $P_{m,G}$ , with corresponding location coordinates ( $x_{m,G}$ ,  $y_{m,G}$ ,  $z_{m,G}$ ) ( $m=1, 2, \dots, M$ ), is first imposed on the survey region SR in the first datum” (col. 3, ll. 57-59) for a “grid point index m” (*see* col. 4, l. 33).

ANALYSIS

Appellants have the opportunity on appeal to the Board of Patent Appeals and Interferences (BPAI) to demonstrate error in the Examiner’s position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) (citing *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)). The Examiner sets forth a detailed explanation for a reasoned conclusion that claims 26-30 are directed to non-statutory subject matter in the Examiner’s Answer. (Ans. 4.) The Examiner also sets forth a detailed explanation of a reasoned conclusion of obviousness in the Examiner’s Answer with respect to claim 1. (Ans. 5-6, 19-20.) Therefore, we look to Appellants’ Briefs to show error in the proffered reasoned conclusions. *See Kahn*, 441 F.3d at 985-86.

*Arguments Concerning the Examiner's Rejection  
of Claims 26-30 under 35 U.S.C. § 101*

The Examiner rejects Appellants' claims 26-30 for being directed to non-statutory subject matter – finding that the claims are directed to signals that do not fall within a proper statutory category (citing *In re Nuijten*, 500 F.3d 1346 (Fed. Cir. 2007)). (Ans. 4.) Appellants contend that the subject matter is statutory. (Reply Br. 4-5.) Based on the record before us, we do not find error in the Examiner's rejection of claims 26-30 under § 101.

We agree with the Examiner's findings with respect to Appellants' Specification, construction of the recited “computer-readable medium,” and interpretation of the legal precedent. We find Appellants mischaracterize the current state of the law, and consequently their countervailing legal arguments to be unpersuasive for the reasons that follow.

Appellants' claims 26-30 recite a “computer-readable medium” (FF 1) that Appellants describe as comprising communication media, which embodies “a modulated data signal such as a carrier wave.” (FF 2.) We find Appellants' claimed “computer-readable medium” implicates a transitory signal. Specifically, claims 26-30 encompass the use of a computer data signal embodied in a carrier wave to store, transfer, or manipulate information. A computer data signal embodied in a carrier wave is a transitory, propagating signal not within any of the four statutory categories and, therefore, non-statutory. *See In re Nuijten*, 500 F.3d at 1357; *Subject Matter Eligibility of Computer Readable Media*, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010). It follows that claims 26-30 are directed to non-statutory subject matter. Accordingly, we affirm the Examiner's rejection claims 26-30 under § 101.

*Arguments Concerning the Examiner's Rejection  
of Claim 1 under 35 U.S.C. § 103*

The Examiner rejects Appellants' independent claim 1 as being unpatentable over the combination of McBride and Agrawal. (Ans. 5-6, 19-20.) The Examiner finds that McBride discloses a "one-dimensional grid index series wherein each location entity is represented as a series of grids that incorporate the location of each location entity." (Ans. 5-6, 19 (citations omitted).) Appellants contend that McBride does not disclose, teach, or suggest the disputed limitation. (App. Br. 5-10.) Specifically, Appellants contend that:

McBride's "grid point index" is substantially different from – in fact, wholly unrelated to – the claimed "one-dimensional grid index series." . . . For example, whereas the claimed "grid index series" identifies the *grid squares* to which a location entity is *mapped* for grids of *varying size*, McBride's "grid point index" identifies the *single point* to which a location entity *directly* corresponds on a *single grid*.

(App. Br. 10.) Based on the record before us, we find error in the Examiner's obviousness rejection of Appellants' claim 1. We agree with Appellants that McBride (or McBride and Agrawal collectively) would not have taught or suggested the disputed features of Appellants' claim 1 to one skilled in the art for essentially the reasons espoused by Appellants.

Based on a broad but reasonable interpretation of Appellants' disputed claim limitation in light of Appellants' Specification and their explanation in their Briefs, we find that Appellants' recited "computing a one-dimensional grid index series wherein each location entity is represented as a series of grids that incorporate the location of each location entity" means computing a series (one-dimensional series) of grid values (grid index values) for a



location entity (or entities) for multiple grids of varying size. (*See Spec.* 12:22-13:7, 15:19-16:19, 18:1-12, 18:24-19:6; Fig. 6.)

As detailed in the Findings of Fact section *supra*, McBride describes a grid having location points and a grid point index (FF 3), which one of skill in the art would understand to be an index of a grid (points on a grid) incorporating locations (survey point locations). As pointed out in detail by Appellants (*see App. Br.* 7-9), McBride's grid and grid point index are very different from the recited grid index series. During the patent examination process, claims receive their broadest reasonable interpretation. *See In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). However, the Examiner must still examine the entire patent disclosure to discern the meaning of a disputed claim limitation. *See, e.g., In re Paulsen*, 30 F.3d 1475, 1479-80 (Fed. Cir. 1994) (Application examined in its entirety to determine meaning). Although we agree with the Examiner that McBride teaches a grid and a grid index, McBride does not describe utilizing multiple grids (having different sizes) to calculate a series of index values (grid series index) or values (index values) dependent on grid structure (size) – much less calculating these values for each location entity (point in the grid). The addition of Agrawal does not cure this deficiency.

Consequently, we are constrained by the record before us to find that McBride (or McBride and Agrawal collectively) would not have taught or suggested the disputed features of Appellants' claim 1. It follows that Appellants have persuaded us of error in the Examiner's obviousness rejection of Appellants' claim 1.

*Arguments Concerning the Examiner's Rejection of the  
Remaining Claims under 35 U.S.C. § 103(a)*

Appellants' independent claim 26 includes a limitation of commensurate scope. Appellants' dependent claims 2-6, 14-18, 21, 22, 27, 29, and 30 depend on claims 1 and 26, respectively. It follows that Appellants have also persuaded us of error in the Examiner's obviousness rejection of Appellants' claims 2-6, 14-18, 21, 22, 26, 27, 29, and 30.

Similarly, the Examiner rejects Appellants' other dependent claims as obvious in view of McBride and Agrawal in combination with additional prior art references. The Examiner rejects Appellants' claims 7, 8, and 28 as being obvious in view of the combination of McBride, Agrawal, and Enomoto. The Examiner rejects Appellants' claims 9-13 as being obvious in view of the combination of McBride, Agrawal, Enomoto, and Porcelli. The Examiner also rejects Appellants' claims 19 and 20 as being obvious in view of the combination of McBride, Agrawal, Enomoto, and Na. Appellants' dependent claims 7-13, 19, and 20 depend on claim 1; and Appellants' dependent claim 28 depends on claim 26. For the reasons set forth with respect to claim 1 (*supra*), we find that McBride does not teach "computing a one-dimensional grid index series wherein each location entity is represented as a series of grids that incorporate the location of each location entity" as recited in Appellants' claim 1. The additional cited references – Agrawal, Enomoto, Porcelli, and/or Na – do not cure the deficiencies of McBride. Consequently, we are constrained by the record before us to find that cited references would not have taught or suggested at least this disputed feature. It follows that Appellants have persuaded us of error in the Examiner's obviousness rejection of Appellants' claims 7-13, 19, and 20.

Therefore, based on the record before us, we find that the Examiner erred in finding McBride discloses a one-dimensional grid index series recited in Appellants' claims 1-22 and 26-30. Accordingly, we reverse the Examiner's obviousness rejection of these claims.

### CONCLUSIONS

Appellants have not shown that the Examiner erred in rejecting claims 26-30 under 35 U.S.C. § 101.

Appellants have shown that the Examiner erred in rejecting claims 1-22 and 26-30 under 35 U.S.C. § 103(a).

### DECISION

We affirm the Examiner's rejection of claims 26-30 under 35 U.S.C. § 101.

We reverse the Examiner's rejection of claims 1-22 and 26-30 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED-IN-PART

Appeal 2009-006527  
Application 10/673,111

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